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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/521,650   | 01/13/2005  | Rinaldo Husker       | II/2-22717/A/PCT    | 9350             |
| 324 7590 04/01/2008<br>JoAnn Villamizar<br>Ciba Corporation/Patent Department<br>540 White Plains Road<br>P.O. Box 2005<br>Tarrytown, NY 10591 |             |                      |                     |                  |
| EXAMINER<br>TREIDL, JESSICA I  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 4145   |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/521,650

**Applicant(s)**

HUSLER ET AL.

**Examiner**

JESSICA TREIDL

**Art Unit**

4145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF 298)  
Paper No(s)/Mail Date 20050408
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The journal reference and the European foreign patent document of the information disclosure statement filed 4/8/2005 fail to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because a copy of each document was not provided. The references have not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Specification***

2. The use of the trademarks, such as DAROCUR 1173, IRGACURE 184 and ESACURE 150, has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, the functional group R can be either methyl or trimethylsilyl, however it may also be hydrogen when A is simultaneously the group  $-\text{C}(\text{CH}_3)_2-$ . The structure is indefinite because it is unclear if this hydrogen is in addition to the methyl or trimethylsilyl or if it takes the place of one of those two.

Clarification is required.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Felder et al (US 4,308,400).

Regarding claims 1 and 2, Felder et al teach aromatic-aliphatic ketones of formula I wherein Ar can be -phenyl-T-phenyl-, T can be  $-\text{O}-$ ,  $n=2$ ,  $\text{R}^1$  &  $\text{R}^2$  can be methyl, X can be  $-\text{OR}^5$ , and  $\text{R}^6$  can be methyl (reference formula I, C2/L1-C3/L43). The reference additionally teaches 4,4-bis( $\alpha$ -piperidino-isobutryl)diphenyl oxide (C8/L1-10), an embodiment of reference formula I as well. The compound exemplifies the structural relationship between the phenyl-T-phenyl group and the isobutryl groups claimed in

Art Unit: 1794

instant formula I and is identical to the compound taught above with the piperidino group replaced with a methyl group (R<sup>6</sup>).

Regarding claim 3, Felder et al teach all the claim limitations as set forth above. Additionally, the reference teaches a composition (C11/L30-C12/L68) comprising at least one ethylenically unsaturated compound (C11/L33, ethylene diacrylate C11/L39), the claimed photoinitiator (C11/L32), fillers (C12/L58-61) and further photoinitiators (C12/L62-68).

Regarding claims 6 and 8, Felder et al teach all the claim limitations as set forth above. Additionally, the reference teaches applying the composition to a surface and curing the composition with UV light (see Example 4).

Regarding claim 7, Felder et al teach all the claim limitations as set forth above. Additionally, the reference teaches the composition as a pigmented or unpigmented surface coating (C13/L19-27; varnish coating of metal sheeting, colorless varnish coating of paper).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1794

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 4, 5, and 9-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Felder et al (US 4,308,400) as applied to claim 1 above, and in view of Gaske (US 3,844,916).

Regarding claim 4, Felder et al teach all the claim limitations as set forth above. While the reference teaches the composition comprising an ethylenically unsaturated compound, even an acrylate, (C11/L33, ethylene diacrylate C11/L39), it does not specifically teach an aminoacrylate as the ethylenically unsaturated compound.

Gaske discloses a radiation curable coating composition (C1/L4-5) containing a photoinitiator (C1/L32-33, see photosensitizer) and an ethylenically unsaturated

Art Unit: 1794

compound being an aminoacrylate (C1/L17-42). Furthermore the reference discloses the composition to cure rapidly with minimum ultraviolet light and producing minimum fumes and vapors (C1/L8-11). The reference additionally discloses that the radiation polymerization is extended and speeded by the presence of the tertiary amine of the aminoacrylate compound (C1/L34-42). Gaske and Felder et al teach analogous inventions related to radiation curable coatings comprising a photoinitiator and an ethylenically unsaturated compound. It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aminoacrylate as the ethylenically unsaturated compound of the composition of Felder et al to increase the extent and speed of the polymerization of the composition when exposed to UV light.

Regarding claims 9 and 11, modified Felder et al teach all the claim limitations as set forth above. Additionally, Felder et al teach applying the composition to a surface and curing the composition with UV light (see Example 4).

Regarding claim 10, modified Felder et al teach all the claim limitations as set forth above. Additionally, Felder et al teach the composition as a pigmented or unpigmented surface coating (C13/L19-27; varnish coating of metal sheeting, colorless varnish coating of paper).

Regarding claim 5, Felder et al teach a composition comprising the photoinitiator of claimed formula III (C8/L8-9, see 4,4'-bis-( $\alpha$ -hydroxy-isobutryl)-diphenyl ethane), an ethylenically unsaturated compound (C11/L33, ethylene diacrylate C11/L39), fillers (C12/L58-61) and further photoinitiators (C12/L62-68). While the reference teaches the composition comprising an ethylenically unsaturated compound, even an acrylate,

(C11/L33, ethylene diacrylate C11/L39), it does not specifically teach an aminoacrylate as the ethylenically unsaturated compound.

Gaske discloses a radiation curable coating composition (C1/L4-5) containing a photoinitiator (C1/L32-33, see photosensitizer) and an ethylenically unsaturated compound being an aminoacrylate (C1/L17-42). Furthermore the reference discloses the composition to cure rapidly with minimum ultraviolet light and producing minimum fumes and vapors (C1/L8-11). The reference additionally discloses that the radiation polymerization is extended and speeded by the presence of the tertiary amine of the aminoacrylate compound (C1/L34-42). Gaske and Felder et al teach analogous inventions related to radiation curable coatings comprising a photoinitiator and an ethylenically unsaturated compound. It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aminoacrylate as the ethylenically unsaturated compound of the composition of Felder et al to increase the extent and speed of the polymerization of the composition when exposed to UV light.

Regarding claims 12 and 14, modified Felder et al teach all the claim limitations as set forth above. Additionally, Felder et al teach applying the composition to a surface and curing the composition with UV light (see Example 4).

Regarding claim 13, modified Felder et al teach all the claim limitations as set forth above. Additionally, Felder et al teach the composition as a pigmented or unpigmented surface coating (C13/L19-27; varnish coating of metal sheeting, colorless varnish coating of paper).



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA TREIDL whose telephone number is (571)270-3993. The examiner can normally be reached on Monday- Thursday, 7:30AM- 5PM EST, Alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571) 272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gwendolyn Blackwell/  
Primary Examiner, Art Unit 1794

/J.T./  
/3.12.08/